

BOATS ON THE NILE - 1

■ "The road of Egypt"

For ancient Egyptians boats were the most important means of transportation along the "road of Egypt." Ships sailed up and down the Nile loaded with goods to trade. Traveling along the river was much easier than risking a journey through the unforgiving desert that borders each side of the Nile valley. Egyptians even thought boats were the transport of the gods. They believed that every 24 hours the great sun-god **Amon-Ra** made a voyage across the sky as though he were on the waters of the Nile. The Egyptians named their ships just as sailors do today. They called Ra's craft "The Boat of a Million Years." At night, they believed he sailed through the underworld of the spirits and emerged at sunrise each day from that forbidding, dark place.

■ Boats, boats, and boats

Many kinds of boats were used, from small ones made of papyrus to large boats made of wood. There were small cargo boats for carrying grain, rowing boats for transporting stones for pyramids, and state ships for honoring kings and high officials. When they traveled across the eastern desert for trade, hunting, or fishing expeditions, ancient Egyptians even carried their boats with them in pieces and assembled them on the shores of the Red Sea. Once put together, the joints or seams between the outer planks were caulked, or made watertight, by packing oiled papyrus reeds into them.

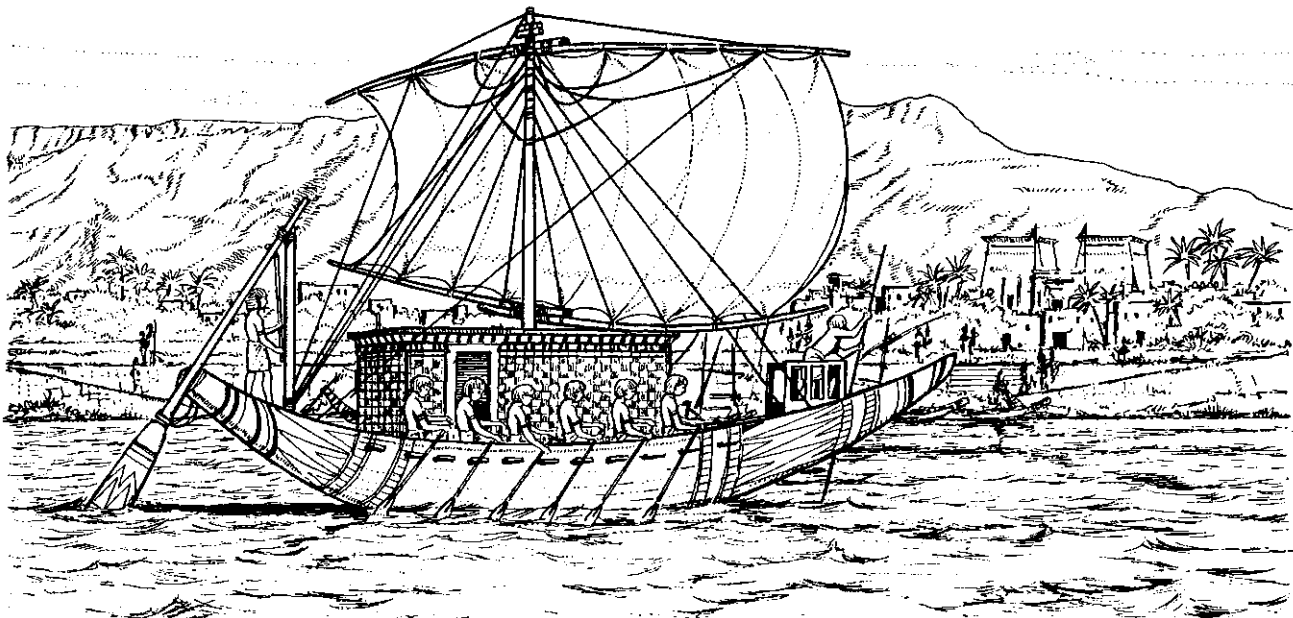
The first Egyptian boats were made of papyrus bundles, tied at both ends, and slightly curved at the top with a wider area in the middle of the boat. These were built over 5,000 years ago. Reed mats were placed in the middle of the boat to keep the inside dry. Simple papyrus boats were used by everyone: peasants, fishermen, hunters and by anyone traveling alone. Papyrus boats were pushed with a pole or with a paddle, and never had sails.

■ 1970: Ra 2

Norwegian scientist Thor Heyerdahl wanted to test the seaworthiness of papyrus boats. In 1970, he built Ra 2 from bundles of papyrus lashed together with rope. It took 57 days to sail from Morocco to the West Indies. This journey did not show that the ancient Egyptians made such a journey, but it did prove that papyrus vessels were capable of surviving long sea voyages.

■ Boats in paintings

Egyptian tomb and temple paintings show countless types of river and seafaring boats evolving through the centuries. By 2500 B.C. Egypt was building elegant river boats and ships of cedar wood imported from Lebanon. Carpenters used bronze tools to build these wooden boats, as Egyptians did not have iron. Wooden boats were much stronger than papyrus boats. Temple reliefs show large boats transporting huge columns and obelisks of granite from the quarries of Aswan.



BOATS ON THE NILE - 2

■ Wooden boats

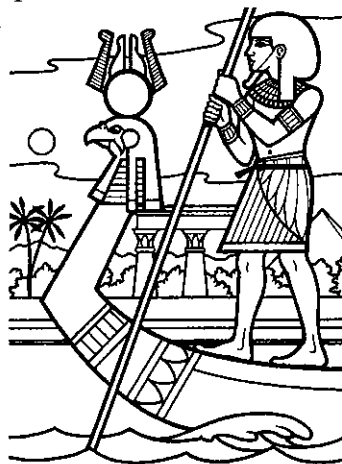
Wooden vessels were made by tying planks of wood together with rope. When the rope got wet it shrank, pulling the wood together and making the hull stronger. The earliest wooden vessels had masts made of two poles joined at the top. Six helmsmen, with six large oars, stood at the stern to steer the boat. The captain stood at the front, keeping a watchful eye on the river. He guided the boat on a safe course by shouting orders to the helmsmen.

■ The geography of the Nile

Although the Nile river flows north, there is a constant wind blowing south. Therefore, boats going north were pushed by the current, and the oars could be used without much effort. Going south required only raising a sail, and one could row with the same ease. Rowing benches were protected by raised side-planking. The Egyptians did not have rudders on their boats. Instead they steered using two large oars held by a seated sailor. The hieroglyph to travel south was a boat in full sail catching the northerly winds. The hieroglyph to travel north was a boat with the sail down. The Egyptians drove their ships with a single square sail. This was the only sort of sail used in Egypt until the Middle Ages.

■ Wooden galleys

Ramses III formed a navy of wooden galleys powered by oars and sails that he used to trap slower sailing ships invading from the Mediterranean Sea. The pictures of the battle on the walls of Ramses III's temple at Medinet Habu show that it was won not only by the ramming attacks of the Egyptians but also by hand-to-hand fighting to board and capture enemy ships. The ram was a forward-jutting extension of the ship's keel, usually armored with a heavy bronze cap in the shape of an animal's head. This battle technique would remain an important part of naval warfare for over 3,000 years, until long-range guns and explosive shells came into use in the nineteenth century.



■ Boats, death, and design

Boats were such an important part of Egyptian life that they were buried near the tombs of pharaohs for them to use in the afterlife. Models of funeral boats were often put in tombs in place of real ones. To ancient Egyptians, a model or a picture of an object was just as effective, for magic purposes, as the object itself. The special design of funerary boats imitated the boat used by Ra for his daily journey with the sun. The curved end pieces were similar to those on boats made of bundles of papyrus stalks. The color green on the side of the boat (the color of crops before they ripen) symbolized resurrection in the afterlife. The Eye of Horus, a symbol of protection and rebirth, was painted on the front of the boat, perhaps to look ahead and guide the dead pharaoh on his voyage in the afterworld.

■ The world's oldest ship

In 1954, an Egyptian archaeologist discovered a sealed pit just south of the Great Pyramid of Giza. Inside the pit was a boat over 140 feet long, the world's oldest known ship, thought to have been built for King Khufu. He probably ordered the 140-foot vessel, made of cedar from Lebanon, for his voyage to eternity. Cedar provided the largest logs for the biggest boats. The height of a cedar tree could range from 60 to 100 feet and the branches had a wide spread. Steered with 26-foot oars, King Khufu's boat may have glided in the funeral procession from the capital at Memphis to Giza. There the boat was taken apart and many of its 1,200 pieces were marked so that it could be rebuilt. Tests on the wood show the boat was used at least once. Buried in an airtight pit along with thousands of feet of rope, the boat is thought to have survived for 4,500 years. Khufu's boat is on display in a museum next to the Great Pyramid.

